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Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, S.W.
Washington, D.C. 20554

RE: Notice of Ex Parte Presentation, MD Docket No. 08-65, RM-11312

Dear Ms. Dortch:

On behalf of Internet2 ("Internet2"), and in accordance with Section 1.1206(b) of the Commission's Rules, 47 C.F.R. §1.1206(b), undersigned counsel hereby submits the instant notice of *ex parte* presentation.

On August 29, 2008, Alan Fishel of Arent Fox, Gary Bachula, Vice President for External Relations for Internet2, Timothy Lance, President of NYSErNet, and John Windhausen Jr., President of Telepoly Consulting, met with Mark Stone and Mika Savir of the Office of Managing Director.

We discussed regulatory fees for international bearer circuits. Specifically, we explained that while the vast majority of international bearer circuits are used for commercial purposes, a very small number of international bearer circuits (approximately only twenty 10 Gbps circuits total) are sold on an indefeasible right of use ("IRU") basis or leased to National Research and Education Networks ("NRENs"). NRENs are noncommercial entities that operate international bearer circuits for the research and education community, which community includes colleges and universities, research laboratories, research hospitals, government laboratories, museums and libraries.

We discussed that the FCC's regulations should be modified in the following manner: For the extremely small number of circuits sold on an IRU basis or leased to NRENs ("Research and Education Circuits"), carriers should not be required to pay international bearer circuit fees.

Otherwise, carriers will pass those fees onto NRENs, which will result in the decline in the number of Research and Education Circuits because NRENs will not be able to afford many of the circuits (indeed, NRENs have already canceled some requests for circuits because of the international bearer circuit fee). Such a decline would have disastrous consequences.

The scientific community relies heavily on high-performance computing and communications, and the Research and Education Circuits are critical components of the infrastructure that supports cutting edge science in all of the following fields: physics, medicine, computer science, bioinformatics, biodiversity and ecological research, geoscience, astronomy and space exploration. U.S. scientists depend upon data flows from devices, sensors and instruments all

around the world, which data is brought to their laboratories by these Research and Education Circuits. Accordingly, if the number of Research and Education Circuits declines, the U.S. competitiveness with respect to all of these areas of science will be greatly jeopardized. Currently, the U.S. is a leader in each of these areas. However, that will change dramatically if the number of Research and Education Circuits decreases as a result of international bearer circuit fees unless such fees are not imposed on Research and Education Circuits. Without a doubt, a decline in Research and Education Circuits would undermine the efforts of the United States, and the global scientific community in general, in each and every one of these fields. It would also place U.S. interests behind those of interests from other countries in these areas.

By way of example only, the U.S. role in each of the following matters/projects will be greatly reduced if there is a decline in the number of Research and Education Circuits:

- LHC (The Large Hadron Collider), which is located in Geneva, Switzerland at CERN, is the world's largest and highest energy particle accelerator. More than 2,500 U.S. physicists will depend upon data from the LHC to conduct their research over the next two decades, which research will be greatly undermined if the number of Research and Education Circuits decline. That is, the data files that U.S. physicists need to transfer from the LHC to their U.S. laboratories are on the order of petabytes (which is 1 million gigabytes), and therefore the Research and Education Circuits must be used for these communications. The LHC is designed to help resolve many fundamental questions about the origins of the universe and the nature of matter, which research will help uncover new energy sources, develop new materials for numerous industries, and help us better understand the global environment of our planet.
- LIGO (Laser Interferometer Gravitational-Wave Observatory) is a global experiment on finding gravitational waves, which will increase our understanding of the fundamental properties of matter, thereby also helping uncover new energy sources, develop new materials in a variety of industries, and better understand the global environment of our planet.
- ITER (The International Thermonuclear Experimental Reactor) in Southern France is at the cutting edge of trying to harness nuclear fusion, and will provide similar benefits to those of LHC and LIGO. The LHC and LIGO are attempting to verify predicted properties of matter, and ITER is even much closer to bringing fusion into practical production. Loss of data from ITER, therefore, could have an immediate and devastating impact on American fusion energy research.
- GENIUS (Grid Enabled Neurosurgical Imaging Using Simulation) is a project to use an array of high performance computers connected by advance networks to simulate blood flow into and from the heart to better understand cardiovascular disease, so as to reduce cardiovascular disease and deaths.

- BRIITE (Biomedical Research Institutions Information Technology Exchange) is a project involving very important cancer research that requires significant use of the Research and Education Circuits.
- GLORIAD (Global Ring Network for Advanced Applications Development) is built on a fiber-optic ring of networks around the northern hemisphere connecting numerous countries, including the U.S., Russia and China, to promote increased engagement and cooperation between countries on a wide variety of issues including (i) strengthening current programs in nuclear weapons disposal, nuclear materials protection, and combating terrorist threats; (ii) supporting technologies to provide virtually limitless supplies of energy; (iii) new telemedicine applications; and (iv) improved weather forecasting and earthquake prediction.
- The e-VLBI (Electronic Very Long Baseline Interferometry) is an array of radio telescopes spread around the globe, which conduct unique high resolution, radio astronomical observations of cosmic radio sources. The e-VLBI provides astronomers with their best view of the most energetic phenomena in the universe, including expanding supernovae, pulsars, flare stars, and the environment surrounding nearby and distant galaxies. These telescopes provide astronomers with the ability to, in effect, use the entire planet as a telescope with remarkable resolution that enables astronomers to observe and predict important trends that affect residents of all nations.

This notice is being electronically filed with the Commission.

Please do not hesitate to contact the undersigned with any questions that may arise with respect to this filing.

Respectfully submitted,



Alan G. Fishel

Attorney for Internet2